

REMARKS

The Examiner is thanked for the thorough examination of this application. The Office Action mailed on May 3, 2005, however, tentatively rejected all pending claims 5-10. After careful review of the Office Action, the Applicant has amended independent claim 5. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Office Action tentatively rejected independent claim 5 under 35 U.S.C. 102(e) as allegedly anticipated by U.S. Published Application 2004/0095819 A1 to Joachim et al. However, claim 5 has been amended for improved clarity, and it is submitted that amended claim 5 is patentable over Joachim et al for at least the following reasons.

Applicant's amended independent claim 5 recites:

Claim 5. A ferroelectric memory comprising:
a sense amplifier; and
a memory unit, coupled to the sense amplifier, comprising:
a positive bit line and a negative bit line which are parallel to each other and are coupled to the sense amplifier;
a word line which is virtually perpendicular to the positive and the negative bit lines;
a positive memory cell which is coupled to the word line and will be connected to the positive bit line when the word line is enabled;
a negative memory cell which is coupled to the word line and will be connected to the negative bit line when the word line is enabled;
a plate line which is coupled to the positive and the negative memory units;
a first current source which is coupled to the positive bit line; and
a second current source which is coupled to the negative bit line, wherein, while reading the memory cell, the first current source supplies a first current to the positive bit line and the second current source supplies a second current to the negative bit line before the sense amplifier is activated for enlarging the voltage difference between the positive bit line and the negative bit line.

(Emphasis added).

Joachim et al. discloses memory cell with constant current source 26 and 26' for testing. "The result of this test mode is a reduced differential read signal which tightens the margin for a save operation of the chip." (see e.g., Fig. 3 and paragraph 0020, lines 7-10).

Significantly, Joachim et al. do not disclose a ferroelectric memory having a first current source and a second current source, wherein, while reading the memory cell, the first current source supplies a first current to the positive bit line and the second current source supplies a second current to the negative bit line before the sense amplifier is activated for enlarging the voltage difference between the positive bit line and the negative bit line, as recited by amended claim 5. For at least this reason, independent claim 5 patently defines over Joachim et al.

As such, it is submitted that applicants' independent claim 5, as well as the claims 6-10 dependent therefrom are patentable. It is therefore believed that all of claims 5-10 are in condition for allowance.

CONCLUSION

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

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